Exercise 1 Multiply the polynomial and simplify.
$$f(x) = (\frac{3}{5}x - \frac{4}{7})(\frac{2}{3}x + \frac{5}{6})$$

$$f(x) = \begin{bmatrix} \frac{2}{5} \\ x^2 + \end{bmatrix} x^2 + \begin{bmatrix} \frac{9}{42} \\ x + \end{bmatrix} x + \begin{bmatrix} \frac{20}{42} \\ \end{bmatrix}$$